ANNUAL INDEX

Engineering Education

Volume 74, Numbers 1-8, 1983-84

The page numbers in this index refer to the eight issues of *Engineering Education* for 1983-84.

1-62	October	249-326	February
63-124	November	327-622	March
125-186	December	623-684	April
187-248	January	685-746	May

Note: The March issue, devoted to Engineering Research and Graduate Study, contains its own detailed index.

In this index, **boldface** type indicates subject headings; *italics* indicate authors (and titles of books reviewed); and titles of articles and departments appear in regular type. Page numbers are explained above.

A

ABET: 640, 704
Academics in the Business World, 130
ACT: 661-663
administration: 99, 646-650
advising, academic: 276-277
Aids for Educators, 122, 184, 224, 246, 324, 682, 740
Anderson, Paul V., 676
Andrews, Deborah, 676
Arbabi, Freydoon, 86
ASEE: about the Society, 21-22; active projects, 34; annual conference (1983), 24, (1984), 270, 632, 700; award recipients, 26; board of directors and staff, 37; division periodicals, 76; membership categories & fees, 36; nominees for offices, 174-177; organization, 39; publications, 44; services, 35; zones & sections, 40
audio-tutorial system: 204-209

B

Babcock, Daniel L., 57
Barber, Elinor G., 655
Barr, Ronald E., 310
Begley, T.R., 712
bibliographies: curriculum & course design, 154-156; technology & society; 667; writing guides, 665
Books by ASEE Members, 121, 182, 244, 323, 678, 738
Book Reviews, 676: *How to Write and Publish Engineering Papers and Reports*, 676; *New Essays in Technical and Scientific Communication: Research, Theory, Practice, 676; Writing with a Word Processor*, 677
brain drain: 655, 658-659
Brillhart, L.V., 110
Britain: 134
Brockmann, R. John, 676
Burnet, George, 221
Butala, K.L., 104

C

CACHE: 147
CAD/CAM: 109-110, 147, 162, 310-314
Calendar, Society: 4, 66, 128, 190, 252, 330, 628, 688
career planning: 717-720
Career Planning Characteristics of Engineering Students, 165
Case History Reviews, 178
case studies: 91-98, 227, 229, 628
Characteristics of Engineering Students in Their First Two Years, 289
chemical eng.: 147-151, 284-287
Cheshier, Stephen, 724
China: 134
civil eng.: 227, 715
Clark, Jim A., 103
Classroom Demonstration of Psychrometrics, A, 103
coaching: 283
communication: 171-173, 206; listening, 163; oral reports, 206, 228; reading, 163, 668 (see also tech. writing & writing)
computer-aided instruction: 147-151, 275-276, 310-314, 712-715
Computer Education for Engineers, 108
Computer Graphics and CAD in a Freshman Engineering Program, 310
Computer Graphics in ChE Education, 147
computers: 25; costs, 149-151; eng. tech., 712-715; faculty training, 151; graphics, 110, 275-278, 714; hardware, 109-110, 148-150; languages, 108; programming, 713; survey of use, 108-110
construction eng.: 715
continuing educ.: 134; in Japan, 219
creativity: 298, 309-310, 654
crisis in eng. & eng. tech. educ.: 4, 47-52, 670-672
Crittenden, John Barrett, 288
Crowe, Cameron M., 289
Culver, Richard S., 272, 279

D

Debs, M.B., 110
Decoding and Encoding: A Balanced Approach to Communication Skills, 163
defense spending: 157-162
degrees granted: eng. (1983), 640-645; eng. tech. (1983), 732-735; foreign students, 642, 645; minorities, 642, 645; women, 642, 645
de Nevers, Noel, 661
design: 92, 227, 275, 281; computer-aided, 310-314, 713-714; projects, 90, 281-282, 309-310
Design Analysis and Synthesis, 227
Dixon, John R., 84
Does the U.S. Need a National Policy on Foreign Students?, 54
Doigan, Paul, 18, 640

E

East Germany: 134
Economics of Engineering Manpower, The, 157
Edgar, T.F., 147
Eide, Arvid R., 274
Ellifritt, Duane S., 235
Encouraging Professional Behavior

ANNUAL INDEX

Engineering Education

Volume 74, Numbers 1-8, 1983-84

The page numbers in this index refer to the eight issues of *Engineering Education* for 1983-84.

1-62	October	249-326	February
63-124	November	327-622	March
125-186	December	623-684	April
187-248	January	685-746	May

Note: The March issue, devoted to Engineering Research and Graduate Study, contains its own detailed index.

In this index, **boldface** type indicates subject headings; *italics* indicate authors (and titles of books reviewed); and titles of articles and departments appear in regular type. Page numbers are explained above.

A

ABET: 640, 704
Academics in the Business World, 130
ACT: 661-663
administration: 99, 646-650
advising, academic: 276-277
Aids for Educators, 122, 184, 224, 246, 324, 682, 740
Anderson, Paul V., 676
Andrews, Deborah, 676
Arbabi, Freydoon, 86
ASEE: about the Society, 21-22; active projects, 34; annual conference (1983), 24, (1984), 270, 632, 700; award recipients, 26; board of directors and staff, 37; division periodicals, 76; membership categories & fees, 36; nominees for offices, 174-177; organization, 39; publications, 44; services, 35; zones & sections, 40
audio-tutorial system: 204-209

B

Babcock, Daniel L., 57
Barber, Elinor G., 655
Barr, Ronald E., 310
Begley, T.R., 712
bibliographies: curriculum & course design, 154-156; technology & society; 667; writing guides, 665
Books by ASEE Members, 121, 182, 244, 323, 678, 738
Book Reviews, 676: *How to Write and Publish Engineering Papers and Reports*, 676; *New Essays in Technical and Scientific Communication: Research, Theory, Practice, 676; Writing with a Word Processor*, 677
brain drain: 655, 658-659
Brillhart, L.V., 110
Britain: 134
Brockmann, R. John, 676
Burnet, George, 221
Butala, K.L., 104

C

CACHE: 147
CAD/CAM: 109-110, 147, 162, 310-314
Calendar, Society: 4, 66, 128, 190, 252, 330, 628, 688
career planning: 717-720
Career Planning Characteristics of Engineering Students, 165
Case History Reviews, 178
case studies: 91-98, 227, 229, 628
Characteristics of Engineering Students in Their First Two Years, 289
chemical eng.: 147-151, 284-287
Cheshier, Stephen, 724
China: 134
civil eng.: 227, 715
Clark, Jim A., 103
Classroom Demonstration of Psychrometrics, A, 103
coaching: 283
communication: 171-173, 206; listening, 163; oral reports, 206, 228; reading, 163, 668 (see also tech. writing & writing)
computer-aided instruction: 147-151, 275-276, 310-314, 712-715
Computer Education for Engineers, 108
Computer Graphics and CAD in a Freshman Engineering Program, 310
Computer Graphics in ChE Education, 147
computers: 25; costs, 149-151; eng. tech., 712-715; faculty training, 151; graphics, 110, 275-278, 714; hardware, 109-110, 148-150; languages, 108; programming, 713; survey of use, 108-110
construction eng.: 715
continuing educ.: 134; in Japan, 219
creativity: 298, 309-310, 654
crisis in eng. & eng. tech. educ.: 4, 47-52, 670-672
Crittenden, John Barrett, 288
Crowe, Cameron M., 289
Culver, Richard S., 272, 279

D

Debs, M.B., 110
Decoding and Encoding: A Balanced Approach to Communication Skills, 163
defense spending: 157-162
degrees granted: eng. (1983), 640-645; eng. tech. (1983), 732-735; foreign students, 642, 645; minorities, 642, 645; women, 642, 645
de Nevers, Noel, 661
design: 92, 227, 275, 281; computer-aided, 310-314, 713-714; projects, 90, 281-282, 309-310
Design Analysis and Synthesis, 227
Dixon, John R., 84
Does the U.S. Need a National Policy on Foreign Students?, 54
Doigan, Paul, 18, 640

E

East Germany: 134
Economics of Engineering Manpower, The, 157
Edgar, T.F., 147
Eide, Arvid R., 274
Ellifritt, Duane S., 235
Encouraging Professional Behavior

Through Laboratory Instruction, 708
eng. economy: 713
Engineering Degrees Granted, 1983, 640
Engineering Education and the International Student: Policy Issues, 655
Engineering Education: Preparation for Life, 196
Engineering Education's Three-Edged Sword, 68
Engineering Enrollments, Fall 1982, 18
Engineering Solution to Grade Inflation, An, 661
eng. technology: 214, 702-735; curricula, 704, 724-725; degrees, 732-735; enroll., 704, 706, 727-731; faculty prep., 705; identity, 725-726; job titles, 706, 725-726; labs, 704-705, 708-710, 722-723; minorities, 706; recruitment of students, 717-718; salaries, 705-706; status, 722-726; teaching loads, 705; trends, 703-707, 725-726; 2+2 programs, 670-672, 704; women, 706, 716-721
Engineering Technology Degrees—1983, 732
Engineering Technology Education: Developing the Keystone, 702
Engineering Technology Enrollments—1982, 727
The Engineering Technology Profession—Future Directions, 722
England, M.M., 104
enrollment: 84; eng. (1982), 18; eng. tech. (1982), 727-731; foreign students 20, 51, 54-56; minorities, 19; women, 18
Entrepreneurship or Seeking Industry Sponsorship of University Research, 337
EPICS: Professional Projects for Freshmen and Sophomores, 279
ET Profession—Some Alternatives, The, 724
ethics: 708
European educ.: 55, 134, 136
evaluation: of faculty, 99; non-traditional, 651-654; of students, 286, 651-654
Examination of a Formula Method for Assigning Letter Grades, 673
Experience with Computer-Assisted Instruction in Engineering Technology, 712
expert systems: 104

F

facilities: 670
faculty devel.: 646-650
faculty shortage: 4, 14, 23, 54, 670; project, 47
Faculty Shortage: The 1982 Survey, The, 47
fatigue analysis: 92
Findings, 57, 108, 163, 232
First Two Years: Preparing Students for Engineering Education, The, 272
foreign students: 51, 144-145, 171-173, 221-225, 645; degrees, 642; enroll., 20; U.S. policy, 54-56, 655-659
formula grading: 673-675
France: 136
freshmen: 272-273, 279-283, 289-295, 310-314, 716-721
Freshman Engineering: An Administrative Entity, 274

G

Geils, John W., 47
grade inflation: 661-663
grading: 80, 288, 661-663, 673-675; standard scores, 114; t-scoring, 82
graduate study: 171-173, 221-225, 232-234; 655-659, 723-724; Japan, 216-218; student char., 50-52; Tau Beta Pi survey, 223-224
graphics: 147-151, 274-278, 310-314; computer, 110, 275-278, 714
Grayson, Lawrence P., 138, 210, 296
Greer, Marlin, 712
group learning: 306-309, 309-310, 708-710
Guide for Authors, 2, 64, 126, 188, 250, 328, 627, 686
Hackos, JoAnn T., 279
Hagerty, Joseph, 666
Hancock, John C., 14
Henderson, Jerald M., 178
high technology: 162
history: 666-668
Hogan, Joseph C., 23
Hossain, Muhammad A., 284
humanities/soc. sci.: 315-316, 666-668
Huston, Jeffrey C., 221

I

Ideas for Managing Large Classes, 80
Ideas in Practice, 103, 227, 306, 661
Ideas on Encouraging Academic Excellence, 99
immigration bill: 658-659
Incorporating the Principles of Good Writing into an Engineering Curriculum, 664
indus. tech.: 702
industry: vs. academic life, 130, 690; competitiveness, 138-146; & eng. tech., 706-707; sponsorship of academic research, 337-341; training in Japan, 218-219
Ingersoll, Alfred C., 130, 690
International Notes, 134
Introduction to Synthesis in the First Mechanics Course, 309
Is a Doctorate Necessary to Teach Undergraduate Engineering Courses?, 736

J

Jagacinski, Carolyn M., 165
Japan: 134, 173, 341; cont. educ., 219; educ. changes, 298-300; eng. degrees, 141, 215-217; indus. training, 218; productivity, 140-142; research, 300-302; women, 303-304
Japan's Intellectual Challenge: The Future, 296; The Strategy, 138; The System, 210
Jenison, Roland D., 274
job histories: 58
journal keeping: 86
Jur, Tim A., 178
Juricic, Davor, 310

K

Kabel, Robert L., 80
Kahne, Stephen, 54
Kardos, Geza, 92, 178
Keller Plan: 284-287
Kellie, Andrew C., 712
King, Franklin G., 284
Klecka, William R., 232

L

lab reports: 665
laboratories: 670-672, 704-705, 708-710, 722-723
Landis Fred, 157
language study: 213
large classes: 50
Learning from the Problem of the Perverse Pinion, 92
LeBold, William K., 68, 165
lecture: 208, 284-287
Legal Cases: Their Use in Engineering Instruction, 229
Lelong, Donald C., 646
Letters, 4, 66, 190, 628, 688
Limit Enrollments—Or Seek Alternatives, 84
Lindauer, George, 666
Linden, Kathryn W., 165
lower-div. studies: 292-289, 306-316, 370-672; admin., 274-278; advising, 276-277; experiential learning, 279-283; PSI, 284-287; student char., 289-295
LPSI: 284-287

M

Mah, R.S.H., 147

Maher, Richard P., 229
Malstrom, Eric M., 232
management: 646-650, 725
Management Graduates: How Successful, 57
Managing Engineering Education, 152
manpower forecasting: 157-162
Mastering Engineering Concepts by Building an Expert System, 104
mathematics: 212-213
McCullough, Earl S., 108
McLaren, John, 712
McNutt, Anne S., 711
mechanical eng.: 722-726
mechanics: 309-310
Michaelson, Herbert B., 676
Miller, Carolyn R., 676
mining eng.: 106
minorities: 19, 165, 642, 645
Morgan, Robert P., 655

N

National Science Foundation: 340
Nikolajczyk, David R., 103
Nominees for ASEE Offices, 1984-85, 174
non-eng. faculty: 4, 60, 736-737

O

O'Donoghue, R., 664
O'Hair, Michael T., 703
oral reports: 228, 306-308

P

Partial Credit: Not a God-Given Right, 288
patent policy: 338-339
Pavelich, Michael J., 279
Ph.D.: enroll., 19; degrees, 642; requirement for faculty, 671-672, 736-737; shortage, 51, 724, 736
Postlethwait, S.N., 204
Potvin, Janet H., 171
pre-college educ.: 134, 204-205; ET students, 717-718; Japan, 143, 210-214; nat'l reports, 711
Predicting Academic Success in Engineering Graduate Programs, 232
Preparing Faculty Members for Administration, 646
President's Message, 14
President's Report, 23
Probing More of the Mind, 651
Problem of the Perverse Pinion, 94
problem solving: 87, 275-276, 289-295
Problems in Teaching Humanities to Engineering Students, 315
professional educ.: 156, 227, 277, 279-283, 708-710
Professors and Deans, Clients and Competitors, Of, 690
programming: 713
project learning: 227, 279-283, 714-715
PSI: 284-287
psychrometrics: 103
public policy: 306-309
Puckett, J.A., 309

Q

quality of eng. educ.: 51-52, 656; project, 23

R

R & D: 160
Reader Comment, 171, 235, 315, 670, 736
recruitment: eng. faculty, 49; ET faculty, 705; male & female ET students, 717-718
Redekop, David, 227
Reexamination of Standard Scores Used in Grade Assignment, A, 114
registration & licensure: 705, 725-726
Reklaitis, G.V., 147
Renewed Emphasis on Math and Science, The, 711
research: 337-341; patents, 338-339; secrecy, 657-658
Research Amid Vested Interests: Whose Truth is Truest?, 235
retention: B.E.T. students, 706; faculty, 49-50; minorities, 706
Rudnick, Diane Tarmy, 716
Rybak, James P., 670

S

salaries: B.E.T. grads., 706; faculty, 50-51, 60; trends, 157-162
Salsbury, Jason M., 337
Sarchet, Bernard R., 57
Schallert, William F., 702
Selfe, Cynthia L., 86, 163
Self-Paced Instruction Methods in a Required Sophomore Course, 284
Shell, Kevin D., 165
Shell, Richard L., 232
Sheridan, Patrick J., 727, 732
shortage of engineers: 157-162 (see also Ph.D. & faculty)
simulation: 667-668, 713-714
Smith, Charles O., 94
Smith, Karl A., 104, 306
software: costs, 150; instructor-written, 713
sophomores: 284-287, 294-295, 664-665
Staiger, Eugene H., 152, 651
Starfield, A.M., 104
Stavros, Demo A., 708
Structured Controversies, 306
student-centered teaching: 154
Survey of Writing and Technical Writing Courses in Engineering Colleges, A, 110

T

TA's, undergrad.: 84
tape recorder: 206-207
teaching loads: 100, 705
Technical Communication and the Nonnative Speaker, 171
technical writing: 110, 228, 676-677; as part of eng. course, 86-90, 664-665
Technology and Society—An Upper-Level Course, 666
testing: 81; non-traditional, 651-654
thermodynamics: 103
Thomas, Charles R., 114, 673
Tishkoff, Doris P., 315
Trends in Engineering Technology Education, 703

U

Using Existing Facilities to Meet Problems in Engineering Education, 670
Using Science and Technology To Teach Science and Technology, 204
Univ. of Utah: 196

V

videotapes: 667-668
View from the Thirtieth, 130, 690

W

What One Thousand Seniors Think of Graduate Study, 221
Wiggins, Edwin G., 736
Wolf, Lawrence J., 722
Women and Men in Engineering Technology: Shaping the Future, 716
women in eng.: 165; degrees, 642, 645; enroll., 18; eng. tech., 706, 716-721
Wood, Billy H., 310
Woods, Donald R., 99, 289
Woods, Robert L., 171
word processors: 677
writing: 110, 667-668; guides, 665, 676-677; 208; summaries, 667-668
Writing to Learn: Engineering Student Journals, 86

Z

Zinsser, William, 676